

Experiment Number: **G18028C**

Test Type: **Genetic Toxicology - In Vitro  
Micronucleus**

**G03: In Vitro Micronucleus Summary Data**  
Test Compound: **Roundup PowerMax|Distilled Water**

Date Report Requested: **09/24/2021**

Time Report Requested: **14:18:51**

**NTP Study Number:**

G18028C

**Cell Type:**

TK6

**Study Result:**

Equivocal

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Test Type: Genetic Toxicology - In Vitro  
 Micronucleus

Time Report Requested: 14:18:51

Duration: 4 h; Activation: Without S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control <sup>1</sup>	100.0	1.66	1.0	0.423 ± 0.023	
0.000019	120.4	1.87	1.1	0.553 ± 0.007	1.0000
0.000027	81.1	1.8	1.1	0.526 ± 0.108	1.0000
0.000038	115.0	1.87	1.1	0.546 ± 0.057	1.0000
0.000054	112.9	1.53	0.9	0.639 ± 0.081	0.2444
0.000066	111.3	1.5	0.9	0.774 ± 0.134	0.0243 *
0.00008	107.9	1.53	0.9	0.667 ± 0.083	0.1009
0.000098	105.0	1.63	1.0	0.653 ± 0.037	0.0834
0.00012	106.8	1.6	1.0	0.587 ± 0.007	0.2880
0.000147	101.6	1.97	1.2	0.714 ± 0.077	0.0218 *
0.00018	99.8	2.3	1.4	0.821 ± 0.103	0.0047 *
0.000221	71.6	4.23	2.6	0.968 ± 0.094	< 0.001 *
0.000313	30.5	37.47	22.6	17.330 ± 16.330	
Trend p-Value				< 0.001 *	
VIN <sup>2</sup>	63.4	14.68	8.8	3.895 ± 0.366	0.0010 *

Trial Summary: Weakly Positive

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Duration: 4 h; Activation: Without S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	Mean ± SEM	p-Value
	Mean	Mean	Mean		
Vehicle Control <sup>1</sup>	100.0	1.96	1.0	0.421 ± 0.020	
0.000019	101.8	2.83	1.4	0.280 ± 0.031	1.0000
0.000027	106.4	2.77	1.4	0.307 ± 0.044	1.0000
0.000038	101.1	2.63	1.3	0.487 ± 0.066	1.0000
0.000054	101.2	1.9	1.0	0.580 ± 0.070	0.2898
0.000066	95.4	2.0	1.0	0.400 ± 0.050	1.0000
0.00008	102.2	2.43	1.2	0.340 ± 0.040	1.0000
0.000098	102.8	2.43	1.2	0.433 ± 0.033	1.0000
0.00012	101.8	2.23	1.1	0.387 ± 0.041	1.0000
0.000147	90.9	2.33	1.2	0.513 ± 0.103	1.0000
0.00018	98.3	2.1	1.1	0.553 ± 0.057	0.4797
0.000221	71.3	3.13	1.6	0.827 ± 0.252	0.2564
0.000313	8.4	53.57	27.4	0.230 ± 0.230	
Trend p-Value				0.0393	
VIN <sup>2</sup>	64.6	11.68	6.0	3.590 ± 0.398	0.0010 *
Trial Summary: Negative					

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 Test Compound: Roundup PowerMax|Distilled Water

Date Report Requested: 09/24/2021

Test Type: Genetic Toxicology - In Vitro  
 Micronucleus

Time Report Requested: 14:18:51

Duration: 24 h; Activation: Without S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN		p-Value
	Mean	Mean	Mean	Mean ± SEM		
Vehicle Control <sup>1</sup>	100.0	2.14	1.0	0.829 ± 0.052		
0.000019	115.0	2.27	1.1	0.527 ± 0.047		1.0000
0.000027	114.6	1.87	0.9	0.587 ± 0.077		1.0000
0.000038	104.2	1.97	0.9	0.640 ± 0.072		1.0000
0.000054	103.8	1.73	0.8	0.513 ± 0.027		1.0000
0.000066	96.9	1.87	0.9	0.660 ± 0.070		1.0000
0.00008	93.0	2.73	1.3	0.573 ± 0.048		1.0000
0.000098	88.8	3.77	1.8	0.640 ± 0.092		1.0000
0.00012	72.1	10.73	5.0	0.570 ± 0.050		
0.000147	37.0	37.97	17.8	0.500 ± 0.030		
0.00018	0.2	99.43	46.5	50.400 ± 28.520		
0.000221	0.0	99.9	46.8	0.000 ± 0.000		
0.000313	0.0	99.43	46.5	240.000 ± 183.300		
Trend p-Value				0.9988		
VIN <sup>3</sup>	68.7	14.8	6.9	5.690 ± 0.447		0.0010 *
Trial Summary: Negative						

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G03: In Vitro Micronucleus Summary Data  
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Date Report Requested: 09/24/2021

Time Report Requested: 14:18:51

Duration: 4 h; Activation: With 1% Rat S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control <sup>1</sup>	100.0	3.43	1.0	0.392 ± 0.019	
0.00003	99.9	3.83	1.1	0.427 ± 0.067	1.0000
0.000043	109.8	3.9	1.1	0.400 ± 0.050	1.0000
0.000061	97.8	3.3	1.0	0.550 ± 0.170	1.0000
0.000086	92.8	4.33	1.3	0.647 ± 0.133	0.1233
0.000105	102.6	3.8	1.1	0.513 ± 0.164	1.0000
0.000128	102.7	3.7	1.1	0.500 ± 0.110	1.0000
0.000157	95.6	4.13	1.2	0.473 ± 0.123	1.0000
0.000192	93.7	4.43	1.3	0.533 ± 0.093	0.7038
0.000236	92.1	4.57	1.3	0.660 ± 0.053	0.0434
0.000289	79.1	4.83	1.4	0.720 ± 0.083	0.0232 *
0.000354	25.8	21.13	6.2	6.110 ± 2.440	
0.0005	0.1	66.1	19.2	23.110 ± 5.240	
Trend p-Value				< 0.001 *	
CPA <sup>4</sup>	51.5	11.38	3.3	4.400 ± 0.702	< 0.001 *
Trial Summary: Equivocal					

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LEGEND

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MN = Micronuclei, CAS = Chemical abstract registry

For the 4 h chemical exposures with and without S9, the medium with test article (and S9, if present) is changed after 4 h and replaced with fresh medium without test article or S9, and cells are cultured for an additional 20 h to achieve a total culture time of 24 h

Values given as Mean or Mean  $\pm$  Standard Error Mean

Statistical analysis only performed on: % MN

Pairwise comparison with the vehicle control; values are significant at  $P \leq 0.025$  by Dunn's test

Positive control: pairwise comparison with the vehicle control; values are significant at  $P \leq 0.05$  by Mann Whitney U test

Apoptotic and necrotic cells are detected in the assay as ethidium monoazide (EMA)-positive events

Concentration-related trend; significant at  $P \leq 0.025$  by Jonckheere's test

\* Statistically significant pairwise or trend test

The number of wells per concentration of test article = 3

1: Vehicle Control: Distilled Water

2: Positive Control: 3 ng/mL Vinblastine sulfate

3: Positive Control: 0.5 ng/mL Vinblastine sulfate

4: Positive Control: 3 ug/mL Cyclophosphamide monohydrate

**\*\* END OF REPORT \*\***